

**WHAT IS CLAIMED IS:**

- 1           1.       A data quality auditing tool, comprising:  
2           a rule-based programming data analyzer that compares received data to be audited against  
3           a set of rule-based criteria and identifies as unacceptable data that data which violate the rule-  
4           based criteria.
- 1           2.       The tool as in claim 1, wherein the rule-based criteria are business rules and data  
2           conventions.
- 1           3.       The tool as in claim 1, wherein the rule-based criteria are data rules represented as  
2           constraints on data which must be met.
- 1           4.       The tool as in claim 3, wherein the constraints represent business rules and data  
2           conventions.
- 1           5.       The tool as in claim 3, wherein the constraints comprise expert system production  
2           rules.
- 1           6.       The tool as in claim 3, wherein the constraints are static and are applied through  
2           the comparison against the data as is.
- 1           7.       The tool as in claim 6, wherein the constraints are dynamic and are applied  
2           through the comparison against data flows.

1           8.     The tool as in claim 1, wherein the analyzer comprises a match functionality that  
2 compares received data records representing the data to be audited against the set of rule-based  
3 criteria to generate a conflict set of one or more candidate rules which are met.

1           9.     The tool as in claim 8, wherein the analyzer further comprises a conflict  
2 resolution functionality that assigns priority among and between the one or more candidate rules  
3 which are met and selects one or more rules for execution.

1           10.    The tool as in claim 9, wherein the analyzer further comprises an action  
2 functionality that implements actions to be taken on the data as specified by the one or more  
3 rules selected for execution.

1           11.    A method for data auditing, comprising:

2                    comparing received data to be audited against a set of rule-based criteria; and

3                    identifying as unacceptable data that data which violate the rule-based criteria.

1           12.    The method as in claim 11, wherein the rule-based criteria are business rules and

2   data conventions.

1           13.    The method as in claim 11, wherein the rule-based criteria are data rules

2   represented as constraints on data which must be met.

1           14.    The method as in claim 13, wherein the constraints represent business rules and

2   data conventions.

1           15.    The method as in claim 13, wherein the constraints comprise expert system

2   production rules.

1           16.    The method as in claim 13, wherein the constraints are static and are applied

2   through the comparison against the data as is.

1           17.    The method as in claim 16, wherein the constraints are dynamic and are applied

2   through the comparison against data flows.

1           18.    The method as in claim 11, wherein comparing comprises matching received data  
2 records representing the data to be audited against the set of rule-based criteria to generate a  
3 conflict set of one or more candidate rules which are met.

1           19.    The method as in claim 18, further comprises resolving conflicts by assigning  
2 priority among and between the one or more candidate rules which are met and selecting one or  
3 more rules for execution.

1           '20.    The method as in claim 19, further comprising implementing actions to be taken  
2 on the data as specified by the one or more rules selected for execution.